

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region I - EPA New England

Drafted: June 19, 2014

Finalized: June 20, 2014

SUBJECT: CAA Full Compliance Evaluation of Sims Metal Management in Johnston, RI

FROM: Abdi Mohamoud, Environmental Engineer, Air Technical Unit *APN 6/20/14*

THRU: Christine Sansevero, Senior Enforcement Coordinator, Air Technical Unit *CMS 6/23/14*

TO: File

I Facility Information

- A. Facility Name: Sims Metal Management
 B. Facility Location: 15 Green Earth Avenue, Johnston, RI 02919
 C. Facility Mailing Address: Same
 D. Facility Contacts: Mike Kiwanis, Facility Manager, (860) 748-9647 (mobile)
 Bill Huling, Regional Manager of Strategy & Development;
 401-752-2003
 Scott Jacobs, Regional Safety Director
 F. AFS #: 4400740070

II Background Information

- A. Date of Inspection: May 9, 2014
 B. Weather Conditions: drizzling; 50 degrees Fahrenheit
 C. US EPA Representative(s): Abdi Mohamoud and Steve Rapp
 D. State Representative(s): Rich Younkin, RI DEM
 E. Federal Regulations Covered During the Inspection:

Federally Enforceable Air Pollution Control Regulations that might apply:

- 40 CFR Part 82, Subpart F
- 40 CFR Part 60, Subpart JJJJ
- 40 CFR Part 63, Subpart ZZZZ
- 40 CFR Part 63, Subpart JJJJJ

State Regulations (Federally Enforceable)

Rhode Island Air Pollution Control Regulations as applicable, including Regulation 9, Air Pollution Permitting.

F. Previous Enforcement Actions: A Detailed Facility Report from EPA's Online Tracking Information System (OTIS) indicates that there has been no CAA activity of any kind at this facility in the past.

III Purpose of Inspection

The purpose of this inspection was to observe operations onsite and evaluate the facility's compliance with any applicable Clean Air Act regulations.

IV Facility Description

A. Company/Facility History:

Sims Metal Management (SMM) owns and operates a 9.5 acre metal processing facility on a Green Earth Avenue in Johnston, Rhode Island, that collects and processes ferrous and non-ferrous scrap metals. The facility started construction in October 2012 and went into operation in October 2013. SMM employs 23 people and owns five trucks and several hundred roll offs.

B. Contact Name and Mailing Address:

Mike Kiwanis, Facility Manager, is the contact person for this facility. The mailing address for Mr. Kiwanis is 15 Green Earth Avenue, Johnston, RI 02919.

C. Working Hours:

The facility operates one shift a day, five days per week, 52 weeks per year. This shift is typically 12 hours per day from 6 am to 6 pm.

D. Process Description:

SMM collects ferrous and non-ferrous metals from various different sources such as municipalities, manufacturers, small business and the public. Processing of the scrap materials begins with the loading and conveying of the feed materials into an electrically operated 9,000 horsepower (HP) shredder manufactured by Wendt Corporation. The shredded material is then conveyed through various separating mechanisms. Magnetic separators are used to separate the shredded metals. Recovered scrap metals are sold to end-users, such as manufacturers, mills, foundries, secondary smelters, and metal brokers. There is a non-magnetic metal fraction from the waste material ("fluff") which is generally transported to SMM's facility in North Haven, Connecticut for further processing.

V Inspection

A. Entry:

EPA inspectors, Steve Rapp and Abdi Mohamoud, arrived at SMM' facility at 8:00 am. When the inspectors entered, they parked their vehicle inside the SMM facility fence-line and observed the operation from the parking lot. From this location, the inspectors' line of sight to the shredding machine was not obstructed by any trees, building, or fences. The sky was cloudy and it was drizzling. From this location, the inspectors saw dark grey smoke emanating from the shredder, approximately 200 yards away. Additionally, while standing in the parking lot, the inspectors observed particles that looked like ash, as big as snowflakes, floating and slowly falling from the air. The particles appeared to be coming from the direction of the shredding operation.

The inspectors were met by facility representative Mike Kiwanis, Facility Manager, and later by Bill Huling, Regional Manager of Strategy and Development. The inspectors showed their credentials to Mr. Kiwanis and Huling.

B. Opening Conference:

Mr. Mohamoud indicated that the purpose of EPA inspectors' visit was to conduct a CAA inspection to review SMM' compliance with any applicable federal air pollution regulations. Mr. Mohamoud explained that SMM may be subject to a number of regulations including:

- 40 CFR Part 82, Subpart F (a federal standard that establishes requirements for the service, maintenance, repair and disposal of appliances containing ozone-depleting refrigerant);
- Rhode Island Air Pollution Control Regulations, including:
 - o Prohibition of Visible Air Contaminants;
 - o Prohibition of Particulate Matter (Combustion Contaminants);
 - o Control of Volatile Organic Compounds;
 - o Air Pollution Control Permits; and
 - o Control of Hazardous Air Contaminants,
- Various National Emission Standards for Hazardous Air Pollutants (NESHAPs) or New Source Performance Standards (NSPS) that apply to engines and boilers.

Mr. Mohamoud asked Mr. Kiwanis if SMM handled equipment that contained ozone depleting substances (ODS), such as refrigerants, and if so, did SMM use its own equipment or a contractor to evacuate the ODS. Mr. Kiwanis said that SMM does not remove refrigerants from customers scrap equipment that may have contained ODS, such

as white goods, because the SMM only takes materials if they have been previously evacuated of ODS. Mr. Kiwanis said SMM does not own a recovery machine and does not employ a certified technician.

Mr. Mohamoud then asked questions from EPA Region 1's Scrap Metal Inspection Checklist. When he asked about the type, size, and capacity of the shredder, Mr. Kiwanis indicated that the facility has a metal shredder with a rotor. The dimensions of the unit are 130 inches by 115 inches and it has a 9,000 HP engine with electric power.

The facility representatives indicated that the unit shreds all types of metals including autos, white goods, light iron, etc. They explained that the average throughput capacity of the shredder was approximately 400 tons of metal per hour. SMM records the weight of scrap metal entering the facility and the weight going out. The average annual throughput is 360,000 tons scrap metal per year.

When the inspectors asked about air pollution emissions, the facility representatives did not readily have an estimate of annual emissions from the shredder. The inspectors asked SMM if they had a permit from RIDEM. Scott Jacobs, Regional Safety Director, indicated that SMM had submitted proposal letter, dated May 29, 2012, which presented an applicability analysis to the Rhode Island Department of Environmental Management (RIDEM) concerning the construction and operation of a metals processing facility on Green Earth Avenue, Johnston, RI. There is stamp on the proposal from RIDEM indicating that the proposal was received by the RIDEM on May 30, 2012. Mr. Jacobs indicated that the analysis presented in the May 2012 letter demonstrated to RIDEM that a permit was not necessary. The inspectors asked how they had calculated the potential to emit for volatile organic compounds (VOCs). Mr. Jacobs indicated that they used "industry accepted" emission factors. The inspectors asked if the factors were based on emissions testing. Mr. Jacobs replied that were not. He went on to say that did not using emission factors from another facility because such factors are case-by-case.

The inspectors asked if the operation had any pollution controls. The SMM representatives explained that the shredder had dust controls which consisted of a street sweeper in the scrap yard and, inside the shredder mechanism, there was a "Smart Water" system that sprayed water on the material to suppress the particulates. They explained that the water spraying system could detect how much water was needed by the weight of the materials passing through the shredder, thereby minimizing water use.

The SMM representatives indicated that the facility did not have an aluminum smelting furnace. They indicated that the facility did not have any vehicle maintenance operation nor part washers. The representatives said SMM has fleet of 5 trucks, two roll offs and over 200 of shipping containers. They indicated that they did not resurface or paint the

vehicles or containers at the Johnston site but rather, use a local painting contractor, Rhode Island Container, when needed.

When the inspectors asked about stationary source internal combustion engines, the SMM representatives indicated that the facility did not have any internal combustion engines with capacities greater than 250 HP or emergency generators. They explained that the space heater used natural gas.

C. Plant Walk-through:

The inspectors conducted a walk-through of the site with SIMS representatives. Since there were no maintenance shop or internal combustion engines, the inspectors and SMM representatives went outdoors to observe the metal shredding operations. The inspectors observed numerous large dump trucks (i.e., eighteen wheelers), depositing loads of scrap metal in the area in front of the shredder. They observed a number of piles of scrap metal waiting to be shredded, including flattened autos, white goods, and various types of metals, both painted and unpainted. They observed cranes with grappling devices loading scrap metal on to the shredder's conveyor. The inspectors observed various sizes and shapes of metal objects traveling up the conveyor up and then falling into the top of the shredder. The inspectors walked around the shredder and sorting equipment where they saw a significant amount of what appeared to be grey smoke emanating from the metals as they passed through the shredder. The inspectors walked to the end of the shredding device where they saw different piles of shredded metals that were separated as e.g., ferrous and non-ferrous.

Photos and video taken by the inspectors during the walk-through are located in the electronic file folder.

D. Closing Conference:

The inspectors and SMM representatives went back to the facility's office for a closing conference. During the conference, the inspectors asked clarifying questions about how larger items, such as automobiles and white goods are handled prior to shredding. SMM representatives explained that they do not accept any items from customers that have not been drained of fluids or refrigerants. They explained that SMM inspects the items as they come into the facility to ensure that they are fluid/refrigerant free. Also, SMM requires customers to submit a form attesting to this condition of the materials.

The inspectors requested Mr. Jacobs submit information related to the proposal to construct and operate a metal processing facility that SMM submitted to RIDEM.

The EPA inspectors informed the SMM representatives that after reviewing the information gathered on the inspection, they may have additional questions. If so, they

may send an email or a more formal reporting requirement to SMM. The EPA inspectors thanked SMM representatives for their time and assistance and departed the site.

E. Post inspection:

On May 15, 2014, Mr. Jacobs submitted the proposal to construct and operate a metals processing facility located on Green Earth Avenue in Johnston, Rhode Island.